established by the Brazilian government (2.5-6.5%) and below the observed mean rate in the last three years (4.4%).

PRM28

BAYESIAN INFERENCE IN MIXED TREATMENT COMPARISONS (MTC) WITH CONTINUOUS OUTCOMES

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OBJECTIVES: The aim of this paper is to present a compact and coherent within the Bayesian inference method of best meta-analysis model selection as well as to present analytical results in performing Gibbs sampling within the MTC framework. **METHODS:** In order to perform Gibbs sampling from the posterior distribution in the random effects model of MTC we evaluate the formulas for the conditional distributions for all parameters. We test for the existence of between study heterogeneity and other parametric restrictions by comparing marginal data densities of competing models. We show how the prior distribution on the model space may affect the inference about best model selection. As an empirical example we present an analysis of effectiveness of two real (although blinded) drugs and placebo. **RESULTS:** We present the marginal posterior distributions of key parameters as well as the comparison of a few restricted models. Among 18 studies from the systematic review dealing with treating the analyzed medical issue with drugs of interest there exist a significant effect of heterogeneity. The a priori distribution on the space of models does not affect this final conclusion (Bayes factor varies from 185 to 190 in favor of the unreduced model). The posterior odds ratio (which equals around 293.1) points that the treatment with Medicine A brings a stronger effect than with Medicine B or placebo. **CONCLUSIONS:** Our results show, that using pure Bayesian techniques can be widely used within the MTC framework. We present an easy to operate and coherent inference in performing complex meta-analyses. We also found confirmed, that Medicine A significantly better increases the level of observed outcome than other treatments.

Research On Methods – Patient-Reported Outcomes Studies

PRM29

TRANSLATION AND VALIDATION STUDY OF MORISKY MEDICATION ADHERENCE SCALE (MMAS): THE URDU VERSION

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OBJECTIVES: To translate, validate and examine the psychometric properties of the Urdu version of the Morisky Medication Adherence Scale (MMAS) among patients with hypertension. **METHODS:** A systematic procedure of ''forward–backward'' was used to translate MMAS into Urdu (official language of Pakistan). It was later validated on a convenience sample of 272 established hypertensive patients between July and October 2010 visiting outpatient department of cardiac ward at Bolan Medical College Hospital, Quetta, Pakistan. For test-retest reliability, data was available for 42 patients. Internal consistency was taken as a measure to test reliability of the MMAS. Convergent and known group validity was taken into account to confirm the validity. **RESULTS:** The mean ± SD of MMAS score was 6.19 ± 1.81, which was measured by applying the recommended scoring method of Morisky Scale. Internal consistency was found to be moderate (Cronbach's a = 0.621). Test–retest reliability value was 0.801 ($p < 0.001$). By applying Spearman's rho, positive correlation between the eight- and four item MMAS was found ($r = 0.792$; $p < 0.01$). A significant relationship between MMAS categories and blood pressure control ($\chi 2 = 20.121$; $p<0.001$) was found. The MMAS sensitivity and specificity, with positive and negative predictive values were 71.54%, 41.48%, 44.74% and 75.56%, respectively. **CONCLUSIONS:** The findings of this validation study indicate that the Urdu version of the MMAS is a reliable and valid tool for the measurement of medication adherence in Pakistani health system.

PRM30

A COMPARISON OF THE PATIENTSLIKEME QUALITY OF LIFE QUESTIONNAIRE (PLMQOL) WITH THE RAND SF-36

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OBJECTIVES: PatientsLikeMe developed the 24-item PLMQOL to be a brief, easy-to-complete online patient-reported assessment of health-related quality of life. The instrument consists of three domains: physical, social, and mental function. As part of the validation process, we examined the performance of the PLMQOL compared with the RAND SF-36 in a population of patients with chronic disease. **METHODS:** Both the PLMQOL and the RAND SF-36 were administered via internet to 2042 invited members of PatientsLikeMe, a novel health data-sharing website allowing patients to monitor multidimensional aspects of health and well-being. Patients were randomized to questionnaire order and were required to have filled out at least one PLMQOL in the 30 days prior to the Jun 9, 2011 survey deployment date in order to be eligible. **RESULTS:** 1228 patients opened the survey invitation, and 660 (54% of those who opened the invite; 32% of eligible sample) patients completed the survey over the 10-day window of availability. No significant differences were seen between the randomized samples by age, sex, condition, or response. Respondents represented approximately 100 chronic conditions; most commonly reported were multiple sclerosis (n=147), fibromyalgia (n=112), Parkinson's disease (n=43), and amyotrophic lateral sclerosis (n=42). The PLMQOL demonstrated high reliability across domains of physical (11 items, α=0.940-0.944), mental (8 items, α=0.909-0.917, and social function (5 items, α=0.810-0.828). In addition, the PLMQOL was highly correlated with relevant domains of the RAND SF-36 as demonstrated by Pearson correlation: RAND physical function and PLMQOL physical function (r=0.838-0.855, $p<0.001$); RAND emotional well-being and PLMQOL mental function (r=0.832-0.852, $p<0.001$); RAND social function and PLMQOL social function (r=0.795-0.823, $p<0.001$). **CONCLUSIONS:** The PLMQOL is a reliable and valid instrument for online assessment of health-related quality of life, demonstrating high correlations with relevant domains of the RAND SF-36. Further research is required to assess disease-specific psychometric properties and clinical validity.

PRM31

DATA POOLING OF PATIENT-REPORTED OUTCOMES IN CLINICAL TRIALS: EVALUATION OF STRUCTUAL EQUATION MODELLING FOR ASSESSING EQUIVALENCE

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OBJECTIVES: This analysis describes the development, application and comparison of three different equivalence approaches to evaluate equivalence properties of a patient reported outcome (PRO) questionnaire applied to two treatment groups for gastroesophageal reflux disease (GERD). The data used in this analysis was obtained from a medication-monitoring disease registry (iGuard). Patients using either of the two treatments were randomly invited to complete a measure of treatment satisfaction, the Treatment Satisfaction Questionnaire for Medication (TSQM). **METHODS:** Three statistical applications of Confirmatory Factor Analysis (CFA) using a special case of Structural Equation Modelling (SEM) were used to evaluate the equivalence of the TSQM in the two patient populations: 1) equality of the factor scores (measurement equivalence); 2) equality of the variance-covariance matrix (structural equivalence); 3) equality of the measurement error (reliability equivalence). **RESULTS:** Each statistical test agreed that equivalence had been achieved between the two treatment populations for all the three domains of the TSQM. The effectiveness and global satisfaction domains exhibited the strongest significant results on all three tests. However, while the convenience domain exhibited strongly significant equivalence for the measurement equivalence, it only exhibited significant results for the structural and reliability equivalence. **CONCLUSIONS:** While all three methods indicated the same overall results, there is some suggestion of differing sensitivity amongst the tests.

PRM32

FEASIBILITY AND VALIDITY OF THE TIC-P

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OBJECTIVES: In economic evaluation patient-reported questionnaires are frequently used for data collection on medical consumption and productivity losses. The TiC-P is a comprehensive questionnaire focused on establishing costs incurred within the health care system and costs arising from production losses. The questionnaire was developed for a broad application of collecting data in patients treated in mental health care. The aim of this study is to assess the questionnaire's feasibility and validity. **METHODS:** Validation included feasibility, consistency (test-retest) and reliability of reported data. Data were derived from a number of patients included in a study evaluating the cost-effectiveness of alternative feedback mechanisms during psychotherapy. Consistency of the data was assessed using Cohen's kappa coefficients (categorical variables) and intraclass correlation coefficients (ICC) (measurements on interval level). The following values were attached to the coefficients: modest (0.21-0.40); moderate (0.41-0.60); satisfactory (0.61-0.80) and almost perfect (0.81-1.00). Reliability was assessed comparing reported data with registered contacts with psychiatrist, psychologist or psychotherapist. Feasibility was based on response rate, and completeness of report on medication. **RESULTS:** Re-test analyses were based on retest questionnaires of 99 respondents. Agreement regarding medical services was as follows: moderate: 3 items; satisfactory: 8 items; almost perfect: 1 item. Categorical items related to productivity losses included short-term and long-term absence from work and impediment at work. Agreement on these items was satisfactory. ICC's were calculated for 7 items presenting the number of contacts with health care providers. For the remaining items on medical services, ICC's could not be assessed due to insufficient variation in the data. Agreement was considered modest on 1 item, satisfactory on 3 items and almost perfect on 3 items. Reliability of reported and registered number of contacts was 82%. **CONCLUSIONS:** These preliminary results indicated that the TiC-P is a valid instrument for measuring medical consumption and productivity losses.

PRM33

SYSTEMATIC REVIEW OF HEALTH STATE UTILITIES IN SPAIN

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OBJECTIVES: The objective is to identify published studies reporting utility values or preferences for health states elicited from the Spanish population with the long-term purpose of maintaining an updated database of utilities that can be of help for the research community. **METHODS:** A systematic review was conducted to identify studies that elicited utilities by means of questionnaires validated in Spain (EQ-5D, SF-6D, etc.) or accepted techniques (time trade-off, standard gamble, etc.), from healthy or non-healthy populations. We initially focused in cancer, diabetes and heart diseases. An electronic search was developed and run in MEDLINE, EMBASE, PsycINFO, NHS CRD, Cochrane Central Register of Controlled Trials, CINAHL and Spanish databases. Original utility sources were identified from clin-